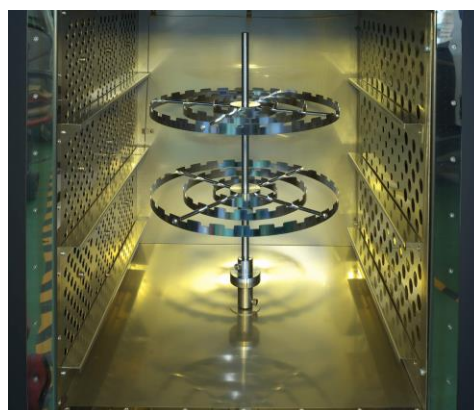


272 | Geer Oven



Test piece carrier



Operation panel

■ APPLICATION

The **Geer Oven** is widely used for evaluating thermal aging of plastics and rubber by the oven method. There are many kinds of thermostatic chamber generally known as the "oven".

Problems have often been encountered in use of these ovens – if these ovens which differ in their mechanisms were used carelessly, the results of testing differ very widely.

Geer Oven has been especially designed and manufactured exclusively for aging tests and not as an ordinary drier or thermostatic chamber.

Important factors such as temperature control precision, temperature distribution, temperature recovery after opening the door, air speed inside the oven, air exchange rate and sealing mechanism of the intermediate chamber, etc. have been fully taken into consideration in designing and constructing this oven.

■ SPECIFICATIONS

45cm square models

Model	A45A2S	A45S	S45
Inner dimensions	W450 x D450 x H500mm		
Temperature range	RT+20°C to 300°C		
Temperature accuracy	• $\pm 1^{\circ}\text{C}$ (40°C to 100°C) • $\pm 2^{\circ}\text{C}$ (125°C to 300°C)		
Temperature distribution (9 points)	• 2°C or less ($T \leq 100^{\circ}\text{C}$) • 4°C or less ($100^{\circ}\text{C} < T \leq 200^{\circ}\text{C}$) • 6°C or less ($200^{\circ}\text{C} < T \leq 300^{\circ}\text{C}$)		
Air speed (Average of 18 points)	0.5±0.1m/s		
Air exchange rate	2 to 20* air changes/hour (*Up to 60 air changes/hour is possible)		
Damper (air exchange rate) adjustment	Automatic	Manual	Manual
Air change meter (Air exchange rate measuring device)	Equipped (Built-in type)	Equipped (Built-in type)	Option (External type)
Test piece carrier rotation speed	8 to 10rpm		
Power supply	Three-phase, AC200V, 50Hz or 60Hz, 3.8kVA		
External dimensions	W1090 x D800 x H1430mm		
Weight	Approx. 200kg		

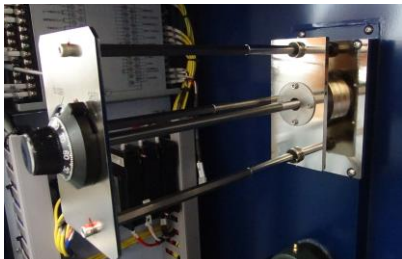
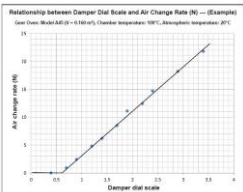
60cm square models

Model	A60A2S	A60S	S60
Inner dimensions	W600 x D600 x H600mm		
Temperature range	RT+20°C to 300°C		
Temperature accuracy	● ±1°C (40°C to 100°C) ● ±2°C (125°C to 300°C)		
Temperature distribution (9 points)	● 2°C or less ($T \leq 100^\circ\text{C}$) ● 4°C or less ($100^\circ\text{C} < T \leq 200^\circ\text{C}$) ● 6°C or less ($200^\circ\text{C} < T \leq 300^\circ\text{C}$)		
Air speed (Average of 18 points)	0.5±0.1m/s		
Air exchange rate	2 to 20* changes/hour (*Up to 50 changes/hour is possible)		
Damper (air exchange rate) adjustment	Automatic	Manual	Manual
Air change meter (Air exchange rate measuring device)	Equipped (Built-in type)	Equipped (Built-in type)	Option (External type)
Test piece carrier rotation speed	8 to 10rpm		
Power supply	Three-phase, AC200V, 50Hz or 60Hz, 4.8kVA		
External dimensions	W1240 x D950 x H1540mm		
Weight	Approx. 290kg		

■ RELATED STANDARDS

Test methods	
ISO 188	<i>Rubber, vulcanized or thermoplastics-Accelerated ageing and heat resistance tests</i>
JIS K 6257	<i>Rubber, vulcanized or thermoplastic-Determination of heat ageing properties</i>
ISO 45717	<i>Polypropylene and propylene-copolymers-Determination of thermal oxidative stability in air-Oven method</i>
JIS K 7212	<i>Plastics-Determination of thermal stability of thermoplastics-Oven method</i>
JIS C 3005	<i>Test method for rubber or plastic insulated wires and cables</i>
Apparatus	
JIS B 7757	<i>Forced air circulation oven type thermal accelerated aging testers</i>

■ AIR CHANGE RATE MEASUREMENT & DAMPER SETTING

	Air exchange rate (Power consumption) measurement	Air exchange rate calculation	Damper (Air exchange rate) setting
A45A2S/ A60A2S	By built-in air change meter 	Automatic calculation by built-in air change meter 	Automatic setting by stepper motor (Possible to save to memory up to 5 points of damper position) 
A45S/A60S	Same as A45A2S/ A60A2S	Same as A45A2S/ A60A2S	Manual setting by dial   
S45/S60	By optional portable (external type) air change meter 	Hand calculation	Same as A45S/A60S

■ ACCESSORIES & OPTIONS

●Included ○Optional ×Not available

Name	Model	Part No.	A45A2S A60A2S	A45S A60S	S45 S60
Test piece carrier	-----	-----	●	●	●
Test piece clips (60pcs.)	-----	2100380	●	●	●
Shelf for 45cm square model (Possible to install up to 3pcs)	SHLF45	-----	○	○	○
Shelf for 60cm square model (Possible to install up to 3pcs)	SHLF60	-----	○	○	○
Automatic damper (air change rate) setting	-----	-----	●	×	×
Built-in air change meter	-----	-----	●	●	×
Portable air change meter (For 3-phase, AC200V, 50/60Hz)	2PA-S	-----	×	×	○
Stacking option	-----	-----	○	○	○
Upward exhaust port option (Note: Downward is standard)	-----	-----	○	○	○
Built-in step down transformer For three-phase, AC220V	30T-4K	-----	○	○	○
External step down transformer For three-phase, AC220V	30K-4K	-----	○	○	○
Built-in step down transformer For three-phase, AC380V	3ST-4K	-----	○	○	○
External step down transformer For three-phase, AC380V	3SK-4K	-----	○	○	○
Off-timer	OFFT-1	-----	○	○	○
Recorder (paperless model)	PLSREC	-----	○	○	○
Cart for 45cm square model	45BO	-----	○	○	○
Cart for 60cm square model	60BO	-----	○	○	○
Viewing window	-----	-----	○	○	○

			
Test piece carrier	Test piece clips	Shelf	Portable air change meter

			
Stacking option	Upward exhaust port option	Off-timer option	Viewing window option

Specifications are subject to change without notice.



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